

WHAT IS CLAIMED IS:-

1. A printhead module for a printhead assembly, comprising at least two printhead integrated circuits, each of which has nozzles formed therein for delivering printing fluid onto the surface of print media, a support member supporting the printhead integrated circuits and at least two fluid distribution members
5 individually mounting a respective one of the at least two printhead integrated circuits to the support member,

wherein the support member has at least one longitudinally extending channel for carrying the printing fluid for the printhead integrated circuits and includes a plurality of apertures extending from the at least one channel through a wall of the support member, and

10 each of the fluid distribution members is formed as a laminated stack of layers for directing the printing fluid from the apertures of the support member to the nozzles of the associated printhead integrated circuit.

2. A printhead module according to claim 1, wherein the at least two printhead integrated circuits, the support member and the at least two fluid distribution members are formed as a unitary arrangement with an electrical connector for connecting electrical signals to the at least two printhead integrated circuits.

15 3. A printhead module according to claim 2, wherein each laminated stack comprises at least three layers comprising an upper layer upon which the associated printhead integrated circuit is mounted, a middle layer and a lower layer which is attached to an upper surface of the support member so as to direct the printing fluid from the apertures of the support member to the nozzles of the associated printhead integrated circuit.

4. A printhead module according to claim 3, wherein:
20 the lower layer includes first distribution apertures arranged to align with respective ones of the apertures in the support member and first distribution channels in an upper surface thereof associated with respective ones of the first distribution apertures, the first distribution apertures having substantially the same diameter as the apertures in the support member;

the middle layer includes second distribution apertures arranged to align with the first distribution
25 channels of the lower layer, the second distribution apertures having a smaller diameter than the first distribution apertures;

the upper layer includes second distribution channels in a lower surface thereof arranged to align with the second distribution apertures of the middle layer and third distribution apertures associated with the second distribution channels, the third distribution apertures having a smaller diameter than the second distribution
30 apertures; and

the associated printhead integrated circuit includes nozzle supply apertures arranged to align with the third distribution apertures of the upper layer and to direct fluid to respective ones of the nozzles, the nozzle supply apertures having substantially the same diameter as the third distribution apertures.

5. A printhead module according to claim 4, wherein the apertures of the support member have a diameter of the order of millimetres and the nozzle supply apertures of the at least two printhead integrated circuits have a diameter of the order of micrometres.

6. A printhead module according to claim 2, wherein the printhead module is arranged to be removably mounted to the printhead assembly.

7. A printhead module according to claim 2, wherein the support member is formed with a plurality of the channels, each of which is arranged to carry a different printing fluid for direction to associated groups of the nozzles in the both, or if more than two, all of the printhead integrated circuits by way of respective ones of the fluid distribution members.

8. A printhead module according to claim 7, wherein the support member is formed with a further channel for delivering air to the at least two printhead integrated circuits for maintaining the nozzles of the at least two printhead integrated circuits substantially free from impurities.

9. A printhead module according to claim 2, wherein lower surfaces of the fluid distribution members are attached to the upper surface of the support member by an adhesive material.

10. A printhead module according to claim 9, wherein the adhesive material is deposited to form a gasket which surrounds each of the apertures of the support member and each of corresponding apertures formed in the lower surfaces of the fluid distribution members so as to form a seal between the respective apertures.

11. A printhead module according to claim 10, wherein:
the apertures of the support member are formed in a row extending across the support member with respect to the longitudinally extending direction of the support member; and
two deposits of the adhesive material are deposited on either side of the row of apertures to provide stability for the mounting arrangement.

12. A printhead module according to claim 11, wherein the adhesive material is a curable resin.